

REMARKS

This responds to the Office Action mailed on December 31, 2003.

Claims 15 and 29 are amended consistent with the recommendation of the Examiner and are believed to overcome the objection. Claims 1-27 and 29-39 are now pending in this application.

The specification has been amended consistent with the suggestion of the Examiner. The objection to the specification is thus believed overcome.

This amendment, and the discussion of the rejections below are believed sufficient to place the application in condition for allowance. At a minimum, it is requested that the amendments be entered to place the application in better condition for appeal.

§102 Rejection of the Claims

Claims 1, 2, 7, 9-17, 20 and 22-26 were rejected under 35 USC § 102(b) as being anticipated by Wood et al (U.S. Patent No. 5,675,149) and incorporated by reference Wood (U.S. Patent No. 5,420,419). This rejection is respectfully traversed, as neither reference describes the claimed use of two or more bias pulses during a frame time. It should be noted that Mr. Wood, the inventor on the present application, and an inventor or co-inventor on the cited Wood and Wood et al., references is the same person. The currently claimed invention is an improvement on his previous work. The combination of references does not teach or suggest each and every element of the claimed invention.

Each of the pending claims references the use of two or more bias pulses during a frame time. The Examiner cites Wood '419 as showing "a timing circuit coupled to the array to apply (US 5,420,419 column 6, lines 18-34) two or more bias pulses substantially sequentially to each microbolometer in the array during a frame time (i.e., the exposure time for producing a complete image; column 5, lines 47-53)" No such teaching is identified in those referenced sections of Wood '419. Column 6, lines 18-34 discusses a temperature curve corresponding to current pulses. It does not contain any reference to multiple bias pulses during a frame time. Column 5, lines 47-53 simply describes a focal plane array with inputs and outputs. Again, no reference to multiple bias pulses during a time frame was found.

Even if the Examiner meant to refer to column 3, lines 40-54, it only refers to providing offset correction by averaging several image frames in an image processor 80. The Examiner appears to be stating that such averaging is the same as averaging pulses within a single frame time. This statement is respectfully traversed. Nowhere does Wood '419 or Wood et al. teach or suggest utilizing two or more bias pulses during a frame time. Wood '419 does not refer to the average of several image frames as a "complete image" as coined by the Examiner in the rejection. In fact, Wood '419 refers to them as stored "digital data in a long-lived digital memory" at line 43. "The image processor subtracts the incoming signals from the digital data in its long-lived memory on a pixel-by-pixel basis. This provides offset correction for each pixel in the image to be viewed by a human observer,...", lines 49-53. Since the iris is closed, or a lens cap is used, no "complete image" is produced by such averaging as alleged in the Office Action. Further, it is quite clear that neither Wood reference applies multiple bias pulses during a frame time as claimed. As at least one element is missing from the references, and not suggested by a combination of them, the rejection should be withdrawn.

§103 Rejection of the Claims

Claims 3-5 were rejected under 35 USC § 103(a) as being unpatentable over Wood et al.(U.S. Patent No. 5,675,149) and incorporated by Wood (U.S. Patent No. 5,420,419) in view of Applicant's Admitted Prior Art. Since these claims depend from claims that are believed allowable, it is requested that the rejection be withdrawn.

Claim 6 was rejected under 35 USC § 103(a) as being unpatentable over Wood et al.(U.S. Patent No. 5,675,149) and incorporated by Wood (U.S. Patent No. 5,420,419) in view of Applicant's Admitted Prior Art as applied to claim 5 above, and further in view of Thiede et al. (U.S. Patent No. 5,129,595). Since this claim depends from a claim that is believed allowable, it is requested that the rejection be withdrawn.

Claims 8, 21, 27, 29, and 33-39 were rejected under 35 USC § 103(a) as being unpatentable over Wood et al.(U.S. Patent No. 5,675,149) and incorporated by reference Wood (U.S. Patent No. 5,420,419) in view of Duvall, III (U.S. Patent No. 5,258,619). Claim 27 is believed to distinguish the references because none of the references teach or suggest, either alone or combined, the application of two or more bias pulses during a time frame. Since claims 8, 21,

29 and 33-39 each depend from independent claims which are believed allowable, the rejection should be withdrawn.

Claims 18 and 19 was rejected under 35 USC § 103(a) as being unpatentable over Wood et al.(U.S. Patent No. 5,675,149) and incorporated by Wood (U.S. Patent No. 5,420,419) in view of Thiede et al. (U.S. Patent No. 5,129,595). Since these claims depend from claims that are believed allowable, it is requested that the rejection be withdrawn.

Claims 30-32 was rejected under 35 USC § 103(a) as being unpatentable over Wood et al.(U.S. Patent No. 5,675,149) and incorporated by Wood (U.S. Patent No. 5,420,419) in view Duvall, III as applied to claim 29 above, and further in view of Thiede et al. Since these claims depend from claims that are believed allowable, it is requested that the rejection be withdrawn.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.


Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 1 day of March, 2004.

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Name


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